

AMENDMENTS TO THE CLAIMS

The claims listed below replace all prior versions and listings of claims in the application.

1. (Currently Amended) An ink composition comprising a liquid medium, a ~~colorant~~ pigment and at least 0.1% by weight of the ink of an amphiphilic material having the formula



R represents an alkyl, aryl, alkyl-aryl or alkenyl group;

Q represents a hydrophilic repeating unit of ethylene oxide or propylene oxide, wherein $n \geq 4$;

A⁺ represents a sulfate, sulfonate or phosphate group;

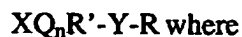
M⁺ represents a cation such as potassium, sodium, lithium or ammonium;

and where if the ~~colorant~~ pigment is a modified carbon black with organic groups covalently bonded thereto, the amphiphilic material has the same charge as the modified carbon black.

2. (Original) The ink composition of claim 1 where the amphiphilic material is one or more compositions selected from the group of (a) alkyl, aryl, alkyl-aryl or alkenyl ether phosphates and salts thereof, including sodium, potassium, ammonium and lithium salts; and (b) alkyl, aryl, alkyl-aryl or alkenyl ether sulfates and salts thereof, including sodium, potassium, ammonium and lithium salts.

3. (Original) The ink composition of Claim 2 wherein the ink comprises no more than 10% of the amphiphilic material on a weight basis.

4. (Original) The ink composition of Claim 1 further comprising at least 0.1% by weight of the ink of a second amphiphilic material, where the second amphiphilic material has the formula



X represents hydroxyl or amino functionality;

Q represents a hydrophilic repeating unit of ethylene oxide or propylene oxide, wherein $n \geq 4$;

R' represents C₁ to C₆ alkyl functionality;

Y represents oxygen, nitrogen or sulfur; and

R represents an alkyl, aryl, alkyl-aryl or alkenyl group.

5. (Original) The ink composition of Claim 4 where the second amphiphilic material is one or more compositions selected from the group of (a) alkyl, aryl, alkyl-aryl or alkenyl mercaptan ethoxylates and (b) alky phenol ethoxylates.

6. (Original) The ink composition of Claim 4 wherein the ink comprises no more than 10% of the second amphiphilic material on a weight basis.

7. (Currently Amended) An ink composition comprising a liquid medium, a colorant pigment and at least 0.1% by weight of the ink of an amphiphilic material having the formula

$XQ_nR'-Y-R$ where

X represents hydroxyl or amino functionality;

Q represents a hydrophilic repeating unit of ethylene oxide or propylene oxide, wherein $n \geq 4$;

R' represents C₁ to C₆ alkyl functionality;

Y represents oxygen, nitrogen or sulfur; and

R represents an alkyl, aryl, alkyl-aryl or alkenyl group.

8. (Original) The ink composition of Claim 7 where the amphiphilic material is one or more compositions selected from the group of (a) alkyl, aryl, alkyl-aryl or alkenyl mercaptan ethoxylates and (b) alky phenol ethoxylates.

9. (Original) The ink composition of Claim 7 further comprising at least 0.1% by weight of the ink of a second amphiphilic material, where the second amphiphilic material has the formula

$R-O-Q_nAM^+$ where

R represents an alkyl, aryl, alkyl-aryl or alkenyl group;

Q represents a hydrophilic repeating unit of ethylene oxide or propylene oxide, wherein $n \geq 4$;

A⁻ represents a sulfate, sulfonate or phosphate group; and

M⁺ represents a cation such as potassium, sodium, lithium or ammonium.

10. (Original) The ink composition of Claim 9 where the second amphiphilic material is one or more compositions selected from the group of (a) alkyl, aryl, alkyl-aryl or alkenyl ether phosphates and salts thereof, including sodium, potassium, ammonium and lithium salts; and (b) alkyl, aryl, alkyl-aryl or alkenyl ether sulfates and salts thereof, including sodium, potassium, ammonium and lithium salts.
11. (NEW) The ink composition of Claim 1 wherein n is at least 11.
12. (NEW) The ink composition of Claim 1 wherein n is at least 30.
13. (NEW) The ink composition of Claim 1 wherein n is at least 50.
14. (NEW) The ink composition of Claim 9 wherein n of the second amphiphilic material is at least 11.
15. (NEW) The ink composition of Claim 9 wherein n of the second amphiphilic material is at least 30.
16. (NEW) The ink composition of Claim 9 wherein n of the second amphiphilic material is at least 50.